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EXAMINER	
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ART UNIT	**PAPER NUMBER**
3628	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/532,080	BOUTIN ET AL.	
	Examiner	Art Unit	
	George Chen	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-16,18,19,21,22 and 24-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-16, 18, 19, 21, 22 and 24-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. DETAILED ACTION

2. This communication is a non-final action in response to RCE filed on 10/07/2009. Claims 9-16, 18, 19, 21, 22 and 24-28 are pending with claims 9, 14-16, 18, 21, 24 amended, claims 17, 20, 23 canceled and claims 26-28 added.

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/07/2009 has been entered.

4. Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 9-16, 18, 21, 24, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shropshire (WO 02/059801 A2) in view of Alibozek (Alibozek, Tim, Smart software builds a better harness, Machine Design, vol 70, no 8, pages 89-92, 1998), further in view of Yamashita (US 6519750 B2).**

7. As per claim 9, Shropshire discloses a method for synthesis of a routing with a design tool stored in a memory on a computer, comprising:

- ✓ a) obtaining parameters of:

- different configurations of service variants and calculator variants (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules) and a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one,
- cost characteristics of components stored and weighted as a function of their respective installation proportions (Shropshire, page 7, amount of material needed is a function of the modules chosen and can usually be approximated),
- partial or complete mapping of service variants onto calculator variants (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules),

✓ b) identifying valid routings (Shropshire, page 5, wiring harness design is analyzed and module data is created automatically);

✓ c) evaluating, via a processor of the computer, routing cost of the valid routings for each configuration (Shropshire, page 7, amount of material needed is a function of the modules chosen and can usually be approximated); and

Shropshire does not explicitly disclose a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one and d) determining, via processor of the computer the valid routing that minimizes the mean, weighted by the installation

proportions of each configuration, of the routing costs for each configuration. Alibozek teaches identifying all possible occurrences (Alibozek, page 92, a smart algorithm explores all possible paths) and determining optimized routing (Alibozek, page 92, algorithms derived from user input data automatically optimize the wire harness for its environment by balancing cost). Alibozek also teaches f) displaying, in a second view on the display, the valid routing that minimizes the mean of a single zone of the plurality of zones (see at least Alibozek,, page 91-92, the figure on lower corner of page 92 states that embassy lets designer select subassemblies and magnify components to observe individual connections; and see page 92, figure on the upper left corner, which states that using the logical and physical information in the data model, optimization techniques control the correct design output)

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine method of synthesis routing with determining optimized routing and for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

Yamashita teaches e) displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view (see at least Yamashita, column 4, line 4-16, in the primitive cell shown in Fig. 3, a signal line (not shown) to be connected to the terminal. And see Fig. 3 wherein the a plurality of zones are situated relative to one another according to the graph and the routing is not shown);

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view to Shropshire would have been recognized by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

8. As per claim 10, Shropshire discloses a method according to claim 9, but does not explicitly disclose wherein a quality characteristic expressed as breakdowns per million is considered to compare respective measures of two candidate architectures for a product plan. Alibozek teaches using quality characteristic to compare respective measures of two candidate architectures for a product plan (Alibozek, page 92, the choice of wire, connectors, and associated parts can have a significant impact of harness costs, quality, and weight. software can explore trade-offs using a routine and makes suggestions to improve harness).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine method of synthesis routing with using quality characteristic to

compare respective measures of two candidate architectures for a product plan for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

9. As per claim 11 Shropshire discloses a method according to claim 10, but does not explicitly disclose wherein one of the quality characteristics considered is weight. Alibozek teaches using weight to compare respective measures of two candidate architectures for a product plan (Alibozek, page 92, the choice of wire, connectors, and associated parts can have a significant impact of harness costs, quality, and weight. software can explore trade-offs using a routine and makes suggestions to improve harness).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine method of synthesis routing with using weight to compare respective measures of two candidate architectures for a product plan for the purpose to tailor automobiles to their own specifications and accelerate design process (Shropshire: page 3; Alibozek: page 89).

10. As per claim 12, Shropshire discloses a method according to claim 9, but does not explicitly disclose further comprising automatically calculating a cost of assembly of electrical and electronic architecture as a function of a cost of assembly of a strand on a zone of the plurality of zones, of a cost of assembly of a connector on a zone boundary or on a zone of the plurality of zones, of a cost of assembly of a calculator on a zone of the plurality of zones, of a cost of assembly of a sensor or actuator on a zone of the plurality of zones, and of a cost of

connection of a connector between zones or in a zone of the plurality of zones. Shropshire, however, discloses calculating cost by calculating adding costs of individual modules of a plurality of modules (Shropshire, page 7, cost of the individual modules are added together).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to make the obvious variation from adding cots of individual models to using cost function of strand, connector, calculator, sensor, actuator and/or connector because each of the stand, connectors, are merely modules in the cost structure.

11. As per claim 13, Shropshire discloses a method according to claim 9, but does not explicitly disclose further comprising synthesizing optimal routing for all configurations, by repeating operations a) to d), criterion for minimization being a cost composed of: an estimated recurrent cost of parts, an estimate of quality cost in anticipation of the cost of repair per zone of the plurality of zones, this quality cost being increased by a constant cost depending on the zone and its ease of access, an estimate of the cost of weight, taking into account mechanical wear and consumption related to an increase of the weight of the vehicle, and/or an estimate of the cost of assembly. Alibozek teaches an estimate of the cost of weight, taking into account mechanical wear and consumption related to an increase of the weight of the vehicle (Alibozek, page 91, Weight is often an issue in vehicles, but it also determines how to fasten a harness to a chisis, for example, large harnesses that are not fastened securely can stress connection points and break under low-level shock and vibration).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine method of synthesis routing with an estimate of the cost of weight,

taking into account mechanical wear and consumption related to an increase of the weight of the vehicle for the purpose to tailor automobiles to their own specifications and accelerate design process (Shropshire: page 3; Alibozek: page 89).

12. As per claim 14, Shropshire further discloses a method according to claim 9, wherein the synthesis of the routing for the product is an electrical architecture of a newly created product or an electrical architecture modified relative to a previous architecture (Shropshire, page 6, a core harness and a set of option modules).

13. As per claim 15, Shropshire discloses a computer readable storage medium including computer executable instructions to synthesize a routing, Wherein the instructions, when executed by a processor, cause the processor to perform a method, comprising:

- ✓ a) obtaining parameters of:
  - different configurations of service variants and calculator variants (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules) and a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one,
  - cost characteristics of components stored and weighted as a function of their respective installation proportions (Shropshire, page 7, amount of

material needed is a function of the modules chosen and can usually be approximated),

- partial or complete mapping of service variants onto calculator variants (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules),

✓ b) identifying valid routings (Shropshire, page 5, wiring harness design is analyzed and module data is created automatically);

✓ c) evaluating routing cost of the valid routings for each configuration (Shropshire, page 7, amount of material needed is a function of the modules chosen and can usually be approximated); and

Shropshire does not explicitly disclose a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one and d) determining the valid routing that minimizes the mean, weighted by the installation proportions of each configuration, of the routing costs for each configuration. Alibozek teaches identifying all possible occurrences (Alibozek, page 92, a smart algorithm explores all possible paths) and determining optimized routing (Alibozek, page 92, algorithms derived from user input data automatically optimize the wire harness for its environment by balancing cost); and f) displaying, in a second view on the display, the valid routing that minimizes the mean of a single zone of the plurality of zones (see at least Alibozek,, page 91-92, the figure on lower corner of page 92 states that embassy lets designer select subassemblies and magnify components to observe individual connections; and see page 92, figure on the upper left corner, which states that using the logical

and physical information in the data model, optimization techniques control the correct design output)

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine method of synthesis routing with determining optimized routing and for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

Yamashita teaches e) displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view (see at least Yamashita, column 4, line 4-16, in the primitive cell shown in Fig. 3, a signal line (not shown) to be connected to the terminal. And see Fig. 3 wherein the a plurality of zones are situated relative to one another according to the graph and the routing is not shown);

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the

plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view to Shropshire would have been recognized by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

14. As per claim 16, Shropshire discloses a device for synthesis of a routing, comprising:

- ✓ a) means for obtaining parameters of:
  - o different configurations of service variants and calculator variants and a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules),
  - o cost characteristics of components stored and weighted as a function of their respective installation proportions (Shropshire, page 7, amount of material needed is a function of the modules chosen and can usually be approximated), and
  - o partial or complete mapping of service variants onto calculator variants (Shropshire, page 6, design is split into modules that roughly map to the options available to the customer. there is a virtual parent harness which includes all possible modules);

- ✓ b) means for identifying valid routings (Shropshire, page 5, wiring harness design is analyzed and module data is created automatically);
- ✓ c) means for evaluating routing cost of the valid routings for each configuration (Shropshire, page 7, amount of material needed is a function of the modules chosen and can usually be approximated);

Shropshire does not explicitly disclose a percentage occurrence of the configurations, a sum of proportions of the configurations being considered equal to one and d) means for determining the valid routing that minimizes a mean, weighted by the installation proportions of each configuration, of the routing costs for each configuration. Alibozek teaches means for identifying all possible occurrences (Alibozek, page 92, a smart algorithm explores all possible paths) and means for determining optimized routing (Alibozek, page 92, algorithms derived from user input data automatically optimize the wire harness for its environment by balancing cost).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine device of synthesis routing with means for determining optimized routing for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

Yamashita teaches e) displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view (see at least Yamashita, column 4, line 4-16, in the primitive cell shown in Fig. 3, a signal line (not shown) to

be connected to the terminal. And see Fig. 3 wherein the a plurality of zones are situated relative to one another according to the graph and the routing is not shown);

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying displaying, in a first view on a display screen of the computer, a plurality of zones into which the service variants and the calculator variants are grouped, wherein the first view includes a guide to indicate how the plurality of zones are situated relative to one another, the plurality of zones schematically represent a product for which the routing is synthesized, and the routing between the zones are not shown in the first view to Shropshire would have been recognized by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

15. As per claim 18, Shropshire discloses a method according to claim 9, Yamashita teaches wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited subzones (see at least Yamashita, column 5, line 10-25, defining prohibited areas in each of the stacked wiring layers).

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved

system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited subzones to Shropshire would have been recognized by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

16. As per claim 21, Shropshire discloses a method according to claim 15, Yamashita teaches wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited zones (see at least Yamashita, column 5, line 10-25, defining prohibited areas in each of the stacked wiring layers).

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited subzones to Shropshire would have been recognized

by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

17. As per claim 24, Shropshire discloses a device according to claim 15, Yamashita teaches wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited subzones (see at least Yamashita, column 5, line 10-25, defining prohibited areas in each of the stacked wiring layers).

One of ordinary skill in the art would have recognized that applying the known technique of Yamashita to Shropshire would have yielded predictable results and resulted in an improved system. It would have been recognized that applying the technique of Yamashita to the teaching of Shropshire would have yielded predictable results because the level of ordinary skill in the art demonstrated by the references applied shows the ability to incorporate such process. Further, applying wherein the displaying in the second view includes prohibited subzones which represent a portion of the product through which wires cannot be passed such that the valid routings do not pass through the prohibited subzones to Shropshire would have been recognized by one of ordinary skill in the art as resulting in an improved system that would allow more efficient design process for electric routing.

18. As per claim 26, Shropshire discloses a method according to claim 9, Alibozek teaches wherein the obtaining different parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from

which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant (see at least Alibozek, page 92, see the Figure on upper left corner which has a dropdown hierarchical list of service variants and graphical user interface for user to enter desired configuration).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine device of synthesis routing with wherein the obtaining different parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

19. As per claim 27, Shropshire discloses a computer readable storage medium according to claim 15, Alibozek teaches wherein the obtaining different parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant (see at least Alibozek, page 92, see the Figure on upper left corner which has a dropdown hierarchical list of service variants and graphical user interface for user to enter desired configuration).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine device of synthesis routing with wherein the obtaining different

parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

20. As per claim 28, Shropshire discloses a device according to claim 16, Alibozek teaches wherein the obtaining different parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant (see at least Alibozek, page 92, see the Figure on upper left corner which has a dropdown hierarchical list of service variants and graphical user interface for user to enter desired configuration).

Therefore, it would have been obvious for one with ordinary skill in the art at the time of the invention to combine device of synthesis routing with wherein the obtaining different parameters includes displaying on the display screen a user interface for the design tool including a hierarchical list including the service variants from which a user can select a particular service variant from the service variants and a graphical zone in which a user can enter a desired configuration of the particular service variant for the purpose to tailor automobiles to their own specification and accelerate design process (Shropshire: page 3; Alibozek: page 89).

21. **Claims 19, 22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shropshire in view of Alibozek, further in view of Yamashita, even further in view of Ozaki (US 7200537 B2)**

22. As per claim 19, Shropshire discloses a method according to claim 9, Ozaki teaches wherein the displaying in the first view includes a first compass as the guide (see at least Ozaki, Fig. 2, wherein the head of car acts as a compass showing), and the displaying in the second view includes a second compass to indicate how to orient the single zone (see at least Ozaki, Fig. 20, wherein the orientation can be easily determined because the base and direction arrow presented)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the displaying in the first view includes a first compass, and the displaying in the second view includes a second compass to indicate how to orient the single zone as the guide as taught by Ozaki in the method of Shropshire, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

23. As per claim 22, Shropshire discloses a computer readable storage medium according to claim 15, Ozaki teaches wherein the displaying in the first view includes a first compass as the guide (see at least Ozaki, Fig. 2, wherein the head of car acts as a compass showing), and the displaying in the second view includes a second compass to indicate how to orient the single

zone (see at least Ozaki, Fig. 20, wherein the orientation can be easily determined because the base and direction arrow presented)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the displaying in the first view includes a first compass, and the displaying in the second view includes a second compass to indicate how to orient the single zone as the guide as taught by Ozaki in the method of Shropshire, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

24. As per claim 25, Shropshire discloses a device according to claim 16, Ozaki teaches wherein in the first view, the display includes a first compass as the guide (see at least Ozaki, Fig. 2, wherein the head of car acts as a compass showing), and in the second view, the display includes a second compass to indicate how to orient the single zone (see at least Ozaki, Fig. 20, wherein the orientation can be easily determined because the base and direction arrow presented)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the displaying in the first view includes a first compass, and the displaying in the second view includes a second compass to indicate how to orient the single zone as the guide as taught by Ozaki in the method of Shropshire, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

25. Response to Argument

26. Regarding Applicant's argument directed to rejection under 35 USC 101 and 112,

27. **Applicant's arguments have been fully considered and are persuasive.**

28. The rejection has been withdrawn.

29. Regarding Applicant's argument directed to rejection under 35 USC 103

30. **Applicant's arguments have been fully considered but are moot in view of the new ground(s) of rejections**

31. Applicant's argument is moot in view of new prior art Yamashita.

32. Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Chen whose telephone number is (571)270-5499. The examiner can normally be reached on Mon-Thu 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571)272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IGOR BORISSOV/
Primary Examiner, Art Unit 3628

/G.C./